



BACKGROUND

- Cancer and cancer treatments impact fertility
- What is impact of a cancer diagnosis is on an adult male's fertility over their lifespan?
- We hypothesize that men with a cancer diagnosis are older at the time of their partner's first live birth.



KEY FINDING

Cancer Type	Cases (n)	Controls (n)	HR	95% CI
Bone	186	882	0.62	0.43-0.89
CNS	1105	5,287	0.62	0.51-0.74
GI	539	2,511	0.69	0.40-1.17
Hodgkin Lymphoma	544	2,659	0.59	0.49-0.71
Non-Hodgkin Lymphoma	1,173	5,684	0.67	0.55-0.83
Renal	688	3,344	0.81	0.57-1.15
Leukemia	705	3,394	0.51	0.39-0.67
Soft Tissue	331	1,620	0.55	0.39-0.77
Testicular	1752	8,589	0.60	0.54-0.67
Other	12,280	59,638	0.81	0.75-0.87

Abbreviations: HR: hazard ratio; CI: confidence interval; CNS: central nervous system; GI: gastrointestinal.

- Male cancer patients were 31% less likely to have a child after 1st cancer diagnosis date than their matched controls (HR = 0.69; 95% CI: 0.65-0.72; $p < 0.001$).
- Estimated effect of cancer diagnosis type on time to first live birth shown in table.



METHODS

- Retrospective, population based analysis of the Utah Population Database.
- 19,303 adult male cancer cases age-matched to 93,608 controls (5:1)
- Stratified Cox proportional hazard models, adjusted for race, ethnicity, and number of live births prior to cancer diagnosis, used to estimate the effect of cancer diagnosis on time of first live birth.



TAKE-AWAY

Male cancer patients were 31% less likely to have a child after any cancer diagnosis when compared to age-matched controls



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These findings are important for patient counseling regarding fertility preservation at time of cancer diagnosis.



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